

REMARKS

This is in response to the Office Action dated March 5, 2008. By way of summary, claims 1-5 and 9 are pending in this application. Claims 1-5 have been amended, claims 6-8 have been canceled, and claim 9 has been added. No new matter has been added by way of these amendments.

Rejection of Claims 4 and 5 under § 102(e) Based on Hamlin

Claims 4 and 5 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent no. 7,003,674, issued to Hamlin ("Hamlin"). This rejection is respectfully traversed because Hamlin fails to identically teach every element of independent claim 4. *See M.P.E.P. § 2131* (stating that in order to anticipate a claim, a prior art reference must identically teach every element of the claim).

Amended claim 4 recites, *inter alia*, "receiving a command at a disk drive from a host computer, the command referencing at least one host interface addressable location in which a mailbox file is stored; and executing the mailbox file under control of the disk drive in response to the command." The amended language of claim 4 finds support throughout the originally filed application, including at paragraphs [0016]-[0019].

Hamlin does not teach the above acts recited in claim 4. In particular, Hamlin does not teach execution of a mailbox file under control of a disk drive in response to a command referencing at least one host interface addressable location in which the mailbox file is stored. As indicated by the Examiner, Hamlin teaches that authentication information may be stored in a pristine area of the drive. Col. 6, ll. 4-5. However, Hamlin does not teach that this authentication information is stored in a host interface addressable location (*see col. 8, ll. 12-15*), and, furthermore, Hamlin does not teach that this authentication information may be executed under control of the disk drive. Instead, the authentication information is used by the disk drive to compare against an entity ID and an entity password received by a user seeking access to the pristine area. *See col. 5, ll. 63-67*. For at least these reasons, the rejection of claim 4 should be withdrawn.

Dependent claim 5 is dependent upon allowable independent claim 4, and the rejection of claim 5 should be withdrawn for at least the same reasons given above.

Rejection of Claims 4 and 5 under § 102 Based on Nozawa

Claims 4 and 5 were also rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 5,235,641, issued to Nozawa (“Nozawa”). This rejection is respectfully traversed because Nozawa fails to identically teach every element of independent claim 4. *See* M.P.E.P. § 2131 (stating that in order to anticipate a claim, a prior art reference must identically teach every element of the claim).

Amended claim 4 recites, *inter alia*, “receiving a command at a disk drive from a host computer, the command referencing at least one host interface addressable location in which a mailbox file is stored; and executing the mailbox file under control of the disk drive in response to the command.” Nozawa does not teach the above acts recited in claim 4.

First, it is respectfully submitted that Nozawa does not teach receiving a command at a disk drive; indeed, Nozawa does not teach or disclose the use of a disk drive. Instead, Nozawa teaches the use of a magnetic tape device subsystem. *See, e.g.*, col. 4, ll. 8-10. It is respectfully submitted that a person skilled in the art would not understand the magnetic tape device of Nozawa to be identical to a disk drive.

Second, even assuming, *arguendo*, that the teachings of Nozawa might be applied to a disk drive, Nozawa does not teach execution of a mailbox file under control of a disk drive in response to a command referencing at least one host interface addressable location in which the mailbox file is stored. Nozawa teaches that an encrypted data key may be stored in an addressable location of the magnetic tape device 12. Col. 6, ll. 41-46. This encrypted data key may be sent to a host, where it is decrypted by a data key cryptographic device (col. 6, ll. 53-55), and the raw data key may then be passed by the host back to the magnetic tape control device 2 in order to be used by a cryptographic adapter 5 in the magnetic tape control device 2 (col. 6, l. 56 – col. 7, l. 16). However, Nozawa does not teach that the encrypted data key itself may be executed under control of the magnetic tape device 12. Indeed, Nozawa does not teach that any files stored in a host interface addressable location of the magnetic tape device 12 may be

executed under control of the magnetic tape device 12 in response to a command referencing that host interface addressable location. For at least these reasons, the rejection of claim 4 should be withdrawn.

Dependent claim 5 is dependent upon allowable independent claim 4, and the rejection of claim 5 should be withdrawn for at least the same reasons given above.

Rejection of Claim 1 under 35 U.S.C. § 103(a) Over Torrubia-Saez and Nozawa

Claim 1 was rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent no. 6,966,002, issued to Torrubia-Saez (“Torrubia-Saez”), in view of Nozawa. This rejection is respectfully traversed for the following reasons

Cited References Do Not Teach the Claimed Mailbox File

Neither Torrubia-Saez nor Nozawa teaches, discloses or suggests, *inter alia*, “creating a mailbox file stored in at least one host interface addressable location of the disk drive using the disk drive access key, the mailbox file being executable under control of the disk drive.” Amended claim 1, emphasis added. The amended language of claim 1 finds support throughout the originally filed application, including at paragraph [0016].

The Examiner admits that Torrubia-Saez “does not disclose that the disk drive can perform an executable function characterized by contents of the mailbox file.” Office Action, p. 6 (referring to previously pending claim 1). The Examiner then relies upon Nozawa for this teaching. However, Nozawa does not teach a mailbox file stored in at least one host interface addressable location that is executable under control of a disk drive. As described above, Nozawa teaches that an encrypted data key may be stored in an addressable location of the magnetic tape device 12. Col. 6, ll. 41-46. This encrypted data key may be sent to a host, where it is decrypted by a data key cryptographic device (col. 6, ll. 53-55), and the raw data key may then be passed by the host back to the magnetic tape control device 2 in order to be used by a cryptographic adapter 5 in the magnetic tape control device 2 (col. 6, l. 56 – col. 7, l. 16). However, Nozawa does not teach that the encrypted data key itself is executable under control of the disk drive.

Thus, neither the cited references nor their combination teach, disclose or suggest the above limitation.

Rejections of Claims 2 and 3 under 35 U.S.C. § 103(a) Over Torrubia-Saez, Nozawa and Vogt

Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as unpatentable over Torrubia-Saez, in view of Nozawa, further in view of U.S. patent no. 6,681,304, issued to Vogt (“Vogt”). The defects of the obviousness rejection of claim 1 over Torrubia-Saez and Nozawa are not cured by Vogt. Therefore, the rejections of claims 2 and 3, which are dependent on claim 1, are respectfully traversed for at least the same reasons given above.

Rejections of Claims 7 and 8 under 35 U.S.C. § 103(a) Over Nozawa, Torrubia-Saez and Rao

Previously pending claim 8 was rejected under 35 U.S.C. § 103(a) as unpatentable over Nozawa in view of U.S. patent no. 5,812,883, issued to Rao (“Rao”). Previously pending claim 7 was rejected under 35 U.S.C. § 103(a) as unpatentable over Torrubia-Saez, in view of Nozawa, further in view of Rao. Although claims 7 and 8 are no longer pending, these rejections, as they might be applied to independent claims 1 and 4, are respectfully traversed.

Claim 1

Cited References Do Not Teach the Claimed Mailbox File

Neither Torrubia-Saez nor Nozawa nor Rao teaches, discloses or suggests, *inter alia*, “creating a mailbox file stored in at least one host interface addressable location of the disk drive using the disk drive access key, the mailbox file being executable under control of the disk drive.” Amended claim 1, emphasis added.

The Examiner admits that Torrubia-Saez “does not disclose that the disk drive can perform an executable function characterized by contents of the mailbox file.” Office Action, p. 6 (referring to previously pending claim 1). The Examiner further admits that Nozawa does not disclose that the mailbox file includes a command that is to be executed by a disk controller. Office Action, p. 9 (referring to previously pending claim 7). The Examiner thus relies upon Rao for this teaching. However, it is respectfully submitted that Rao does not teach a mailbox file stored in at least one host interface addressable location that is executable under control of a

disk drive. Rao teaches that parameters and other information may be sent to a storage drive controller board for storage in nonvolatile memory in order to control the operation of a storage drive. *See col. 7, ll. 6-29.* However, Rao does not teach that these parameters and other information are stored in at least one host interface addressable location of the disk drive. Moreover, Rao teaches that the entered parameters may be used to control the disk drive (*see col. 7, ll. 30-48*), but does not teach that the parameters are executable under control of the disk drive.

Thus, neither the cited references nor their combination teach, disclose or suggest the above limitation.

Claim 4

Amended claim 4 recites, *inter alia*, “receiving a command at a disk drive from a host computer, the command referencing at least one host interface addressable location in which a mailbox file is stored; and executing the mailbox file under control of the disk drive in response to the command.”

The Examiner admits that Nozawa does not disclose that a mailbox file includes a command that is to be executed by a disk controller. Office Action, p. 9 (referring to previously pending claim 8). The Examiner thus relies upon Rao for this teaching. However, it is respectfully submitted that Rao does not teach execution of a mailbox file under control of a disk drive in response to a command referencing at least one host interface addressable location in which the mailbox file is stored. Rao teaches that parameters and other information may be sent to a storage drive controller board for storage in nonvolatile memory in order to control the operation of a storage drive. *See col. 7, ll. 6-29.* However, Rao does not teach that these parameters and other information are stored in at least one host interface addressable location of the disk drive. Moreover, Rao teaches that the entered parameters may be used to control the disk drive (*see col. 7, ll. 30-48*), but does not teach that the parameters may be executed under control of the disk drive in response to a command referencing a host interface addressable location.

Thus, neither the cited references nor their combination teach, disclose or suggest the above limitation.

No Reason to Combine the Cited References As Suggested by the Examiner

It is also submitted that at the time of the invention there was no reason for a person skilled in the art to combine the teachings of Nozawa and Rao as proposed by the Examiner. To support the rejection, the Examiner relies solely upon the general claim that it would have been obvious to incorporate the disk drive control system of Rao into the file cryptographic system of Nozawa in order to allow for ease in updating utility algorithms and associated parameters used within a storage drive. *See Office Action, p. 8.*

However, the Examiner has not provided any rationale as to how the teaching of Rao might be implemented in the cryptographic circuitry of Nozawa. In particular, the Examiner appears to argue that Rao and Nozawa would be combined such that Nozawa incorporates executable functions onto the storage device. However, Nozawa explicitly teaches against incorporating such functionality in the storage device, asserting that by separating the cryptographic functions onto the host side, the data key and ordinary data encrypted by the data key can be stored together in one and the same recording medium. *See col. 3, ll. 39-46.*

A person skilled in the art would not have combined Nozawa and Rao in order to modify the file cryptographic system of Nozawa. Indeed, the disk drive of Rao and the magnetic tape system of Nozawa are so different that one skilled in the art would be discouraged from attempting to combine any of Rao's teachings with the teachings of Nozawa. It appears that the above combination was proposed by the Examiner based solely upon hindsight reconstruction.

New Claim 9

New claim 9 has been added and is believed to be fully distinguished over the art of record. Support for claim 9 may be found throughout the originally filed application, including at paragraphs [0019] and [0020].

CONCLUSION

In light of the above remarks, it is respectfully submitted that pending claims 1-5 and 9 are in condition for allowance. Any remarks in support of patentability of one claim should not be imputed to any other claim, even if similar terminology is used. Any remarks referring to only a portion of a claim should not be understood to base patentability on that portion; rather, patentability must rest on each claim taken as a whole. Although changes to the claims have been made, no acquiescence or estoppel is or should be implied thereby; such amendments are made only to expedite prosecution of the present application and are without prejudice to the presentation or assertion, in the future, of claims relating to the same or similar subject matter.

It is, therefore, respectfully requested that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact Mr. Evans by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,
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